

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-6 (Cancelled)

Claim 7 (currently amended) An apparatus ~~Apparatus~~ for relieving arterial blockage by increasing flexibility of an arterial wall without entering into a lumen of an artery, the apparatus comprising:

- i) surveying means ~~apparatus~~ for surveying a ~~the~~ thickness of an arterial wall, and
- ii) external ablating means ~~apparatus~~ for ablating an ~~the~~ exterior of the arterial wall to increase ~~the~~ flexibility of the arterial wall.

Claim 8 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 7, further including: ~~comprising:~~

- iii) An ablating controller means for controlling the

external ablation of the arterial wall by the external ablating apparatus said ablating controller means being interfaced between said surveying means and said external ablating means and being responsive to a signal from said the surveying means apparatus, the signal relating to the arterial wall thickness.

Claim 9 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 8 7, wherein said the surveying means includes means to ~~apparatus~~ produces a 3D image of the arterial wall.

Claim 10 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 9, wherein said the surveying means is selected from a the group of surveying means consisting of: mechanical imaging, ultrasound, magnetic resonance imaging, computed tomographic imaging using electromagnetic radiation and photonic imaging.

Claim 11 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 8 7, wherein said the ablating means includes apparatus ~~comprises~~ a laser.

Claim 12 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 11, wherein the laser is a femo-second pulsed laser.

Claim 13 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 12, wherein the pulsed laser includes means for producing pulses which are of 20 to 100 fs duration.

Claim 14 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 12, wherein the pulsed laser produces radiation ~~is~~ of 3-5 J/cm<sup>2</sup> fluence.

Claim 15 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 11, wherein the laser produces a laser spot diameter between ~~is~~ 10 to 100  $\mu$ m.

Claim 16 (currently amended) The apparatus ~~Apparatus~~ as claimed in claim 9, wherein the ablating controller means includes means to controls ablation to provide a uniform residual arterial wall.

Claim 17 (currently amended) The apparatus ~~Apparatus~~ as claimed

in claim 9, wherein the ablating controller means includes means  
to controls ablation to provide a plurality of blind holes in the  
exterior of the arterial ~~artery~~ wall.

Claim 18 (currently amended) The apparatus ~~Apparatus~~ as claimed  
in claim 9, wherein the ablating controller means includes means  
to controls ablation to provide a plurality of furrows in the  
exterior of the arterial wall.

Please add new claims 19 and 20 as follows:

Claim 19 (new) The apparatus as claimed in claim 8 wherein said  
ablating means includes a mechanical ablation device including at  
least one blade mounted on at least one pressure sensing  
transducer.

Claim 20 (new) The apparatus of claim 19 wherein said at least  
one pressure sensing transducer is mounted on a micro-electro-  
mechanical means for controlling an incision of said at least one  
blade along two axes.